Coastal
The Energy People

February 4, 2001

Ms. Nancy T. Norton, P.E.
Environmental Engineer Senior
Department of Environmental Quality
Southwest Regional Office
P.O. Box 1688
355 Deadmore Street
Abingdon, Virginia 24212-1688

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Re: Comments on Black Creek TMDL Allocation Study

Dear Ms. Norton:

On behalf of Coastal Coal Company, LLC and in conformance with the guidelines defined during the public meetings held on January 29, 2002, I am submitting the following comments for your consideration:

1) Coastal Coal Company, LLC is requesting for review a copy of Dr. Donald Cherry's final benthic survey report (10/08/95) for the Black Creek watershed.
2) Who performed the bioassessment for DMME dated 10/09/01 as presented in your slide presentation? Is a copy of this report available for public review?
3) What coal seam(s) are associated with the "several acid mine seeps" found along Black Creek as part of a Contract study for Division of Mined Land Reclamation? Are the results of this study available for public review?
4) Will the public have an opportunity to evaluate Map Tech, Inc. modeling calculations and proposed TMDL effluent limits before the next scheduled public meeting?
5) At the public meeting on January 29th, a representative from Red River Coal Company stated that his company used three contract laboratories for flow measurements/water quality analysis since 1991. How many data sets, and during what time period, were measurements/quality data obtained under contract with Well, Waters and Gases a/k/a Envirolytic's, Inc., a/k/a Certified Mine Services of Wise, Virginia? Will any stream characteristics and pollution concentration information generated by the laboratory in question be used in the modeling calculations performed by Map Tech, Inc.?
6) Will the recommended TMDL allocation limits pertain to the entire watershed of Black Creek down to its confluence with the Powell River? During the study presentation, Map Tech personnel indicated that the watershed had been sub-divided into four study segments. If the quality data indicates that a majority of the stream degradation was occurring in the lower portion of the watershed as opposed to the upper segment, would different load allocations be designated for individual segments depending on the degree of impairment?

Coastal Coal Company, LLC appreciates the opportunity to express our concerns on the development of this TMDL process. Please feel free to call me at extension 212 should you have any questions pertaining to our comments.

Sincerely,

John C. Lydzinski
Environmental Compliance

Coastal Coal Company, LLC
A SUBSIDIARY OF THE COASTAL CORPORATION
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COMMONWEALTH of VIRGINIA

W. Tayloe Murphy, Jr.
Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY

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Director

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February 22, 2002

Mr. John C. Lydzinski
Coastal Coal Company, LLC
P. O. Box 1578
Coeburn, Virginia 24230-1578

Re: Comments on Black Creek TMDL Allocation Study

Dear Mr. Lydzinski:

The Virginia Department of Environmental Quality received your comments on the TMDL meeting for development of a Total Maximum Daily Load Report on Black Creek February 6, 2002. This letter represents our effort to address your comments item by item.

1) A copy of Dr. Donald Cherry's final benthic survey report for the Black Creek Watershed is being provided to you by DMLR under separate cover.
2) The bioassessment of DMME dated 10/09/01 was performed by Lynde. This report is also being provided to you for review by DMLR under separate cover.
3) The Norton coal seam is associated with several acid mine seeps in Black Creek. The Lynde report referred to in Item 2 will address this question.
4) The public will have an opportunity to evaluate Map Tech, Inc. modeling calculations and TMDL recommendations before the next public meeting. Based on your interest, we will provide you with a copy of the draft TMDL report prior to the final TMDL public meeting. This report should explain the calculations used to develop final recommendations, however if you have further questions upon reading the draft report, there is a 30 day public comment period during which you may ask for more clarification of any questions that you may have.
5) Flow measurements before June 1995 were made by Red River Coal Corporation technicians. Flow estimates after June 1995 were made by Certified Mine Service's technicians. Flow estimates by Certified Mine Service will not be included in the final hydrologic calibrations nor will any of the associated chemical data.
6) The recommended Total Maximum Daily Load allocations will be based on the modeling results from each sub-watershed. If there are sources identified as the

reason for benthic impairment, then the allocation will target a percent reduction. Point source effluent limitations could be based on allocations for the sub-watershed where a discharge is located but that type of determination would be part of the implementation plan and not part of the TMDL recommendations.

Thank you for your interest and comments regarding the Black Creek Total Maximum Daily Load Study. Although a final public meeting has not be scheduled at this time, we will contact you when the meeting time and date are finalized.

Sincerely,

Nancy T. Norton, P. E.

Nancy T. Norton, P. E.
Environmental Engineer Senior

CC: Joey O'Quinn - DMLR
Phillip McClellan - MapTech
Jutta Schneider - DEQ

Red River

Red River Coal Company, Inc.

P.O. BOX 668 • NORTON, VIRGINIA 24273 • (540) 679-1400 • FAX (540) 679-7499

COMMENTS ON DEVELOPMENT OF A TOTAL MAXIMUM DAILY LOAD (TMDL) FOR AQUATIC LIFE ON BLACK CREEK

Submitted by: Red River Coal Company, Inc.
P.O. Box 668
Norton, VA 24273
James M. Thomas, Vice President
February 14, 2002

Red River Coal Company, Inc. has an active coal surface mining operation in the Black Creek watershed under permit number 1601576 issued by the Virginia Division of Mined Land Reclamation. An affiliated company, Greater Wise, Inc., is the primary surface and mineral property owner in the watershed.

The mining operation is remining abandoned mine lands that pre-date the passage of the Surface Mining Control and Reclamation Act. The mining permit contains an exemption from the Best Available Technology Economically Achievable (BAT) effluent limits for iron, manganese and pH established in Subpart C of 40 CFR part 434. The Clean Water Act was amended in 1987 to add Section 301(p), often referred to as the Rahall Amendment. This amendment provides incentives for remining abandoned mine lands by no longer requiring operators to treat degraded pre-existing discharges to the BAT effluent limits. Red River's permit has site specific effluent limits based on Best Professional Judgment (BPJ). Discharges cannot exceed pre-existing baseline levels of iron, manganese and acidity. The remining operation should result in improved water quality.

Without the incentives provided by the Rahall Amendment and other incentives provided by DMLR's remining program, the mining operation in the Black Creek watershed would not have been feasible and would not have been undertaken. There are numerous other sites in Virginia that will never be remined without these incentives. If remining does not take place, much of the abandoned mine lands in the state will never be reclaimed due to the lack of sufficient federal and state funding.

Red River's concern is that the TMDL process could effectively end remining in the Black Creek watershed and prevent future remining at other locations in Virginia. If the TMDL development indicates that effluent limits more stringent than a remining permit's limits are necessary, how will the conflict between sections 303(d) and 301(p) of the Clean Water Act be resolved? Section 303(d) requires TMDL development while section 301(p) provides incentives to encourage remining.

In order to continue the important remining program in Virginia, with the favorable environmental and economic benefits that result, it is recommended that remining permits be exempt from any additional requirements resulting from the TMDL process.

COMMONWEALTH of VIRGINIA

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February 28, 2002

Mr. James M. Thomas, Vice President
Red River Coal Company, Inc.
P. O. Box 668
Norton, Virginia 24273

Re: Comments on Black Creek TMDL Allocation Study

Dear Mr. Thomas:

The Virginia Department of Environmental Quality received your comments on the TMDL meeting for development of a Total Maximum Daily Load Report on Black Creek February 14, 2002.

As a company actively engaged in remining the Black Creek watershed, you express concerns about the TMDL study and its potential impact on the Rahall Amendment and mining incentives for remining projects.

The purpose of the TMDL study is to determine the source of benthic macroinvertebrate decline in Black Creek watershed. This process may address specific water quality components, if the study indicates that these pollutants are toxic to the benthic community. However, the TMDL study does not mandate water quality limits for activities in the watershed. Ways to improve aquatic life uses in the watershed will be determined by the Implementation Plan that is a state mandated follow-up step to the TMDL Report.

You ask how a conflict between 303(d) and 301(p) of the Clean Water Act will be resolved if TMDL recommended limits are more stringent than the remining permit limits. I would like to emphasize, that this is the first mining TMDL that Virginia has contracted for development. At this point, we do not have answers for all of the issues that may occur. In EPA Region III, efforts are being taken to curtail the potential conflict with remining. In addition, the Virginia Department of Mines, Minerals, and Energy (DMME) actively supports remining initiatives and actively participates in TMDL development for coal field streams.

Although Virginia has not developed Implementation Plans for coal field streams, there are some examples of Implementation Plans for fecal coliform impaired segments. The process for reducing contamination sources should be the same for a mining TMDL. For fecal coliform implementation plans, the stakeholder groups have recommended phases of activities in order to meet the target standard. The first phase for fecal coliform may be fencing cattle from the stream and repair of failing septic systems. Once these sources are removed, if reductions still need to be made, then the next phases of corrective actions are implemented. The Implementation Plan is a study to prioritize reductions and to set milestones for the corrective actions to occur. Current remining activities are being performed based on the assumption that remining results in corrective actions that may improve water quality. These same corrective actions that are undertaken in remining could be the first phase of an implementation plan for benthic impairment. Since remining activities incorporate corrective actions, the conflict that you refer to may not arise.

Stakeholder groups are a key component of the Implementation Plan process in order to improve the success of the watershed solutions. We welcome and encourage your continued involvement and feedback both during the TMDL study and in the subsequent implementation plan development.

Thank you for your interest and comments regarding the Black Creek Total Maximum Daily Load Study. Although a final public meeting has not be scheduled at this time, we will contact you when the meeting time and date are finalized.

Sincerely,

Nancy T. Norton, P.E.

Nancy T. Norton, P. E.
Environmental Engineer Senior

CC: Joey O'Quinn - DMLR
Phil McClellan - MapTech Inc.
Charles Martin, Jutta Schneider - DEQ-CO

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Comments for Black Creek and Dumps Creek TMDL's

Feb. 14, 2002

We are offering these comments to the Black Creek and Dumps Creek TMDL development effort to assist in making the final product stronger. We feel there are several issues with the development of these TMDL's, and other similar ones to come, that should be mentioned. The complexity of the task is great, and the methodology for addressing acceptable stressor levels is undeveloped.

One problem with this approach was a lack of suitable reference streams to determine the expected stressor and biotic values. Since the selected reference streams were somewhat degraded, perhaps the RBP scores from Dumps Creek and Black Creek should be compared to 120-140% of the score for reference streams. Such a "correction factor" may provide a more natural target for restoring these two streams.

The selection of potential stressors was based on literature and research data from throughout the central Appalachian coalfield region. Analysis for the appropriate stressors in these two creeks was based on a multiple regression approach looking for correlations between potential stressors and biotic indices from the RBP assessments. MapTech fit regressions among each of the 8 RBP biotic parameters and significant stressors. Regression results were used to build a model to predict the biotic response of the biota to changes in the stressor levels. To fit the data, the final model had a large number of stressors and coefficients. There was a lack of sufficient data to accurately determine stressor levels necessary to ensure biological health for so many stressors. The large associated errors and confidence intervals make a twofold margin of safety, which is standard if I recall, inadequate. We would encourage employing a safety factor of 5-10 to be assured of restoring the stream for aquatic life.

Little discussion was presented on model validation, a critical step in building confidence in the predictions of any model. The flow model validation presented indicated some consistency between measured and predicted values, but the actual flows tended to be

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lower on Black Creek than predicted. Measured and predicted water quality values also deviated some in both absolute values and patterns. A quantitative validation procedure for the model is necessary before TMDL's can be determined. This work may have been completed but not presented. If not, data subsetting might allow the necessary validations to be performed.

Two assessment approaches were not used, but would be informative. First, visual habitat assessment provides information on the physical condition of the stream substratum, bank, and riparian zone. Often sedimentation can be witnessed on stream substrata when intermittent water column sampling misses the problem, since particulates that enter the stream are only in the water column during the initial flush or when flows are high, mobilizing bed material. Coal fines can readily be identified as a component of bottom sediment. In addition, the condition of the riparian zone is easily determined and recorded during any sampling visit to a site. Secondly, no sediment/pore water chemistry sampling was performed during the initial data collection. Many of the animals sampled during the RBP process spend a large amount of time in interstitial spaces and among the bottom sediments. The literature would suggest that the presence of potential toxins in the sediment and pore water is much more likely to be the cause of degraded RBP scores than chemicals measured in the water column because the sampled animals are benthic. Some addition of sediment/pore water chemical sampling would make the TMDL process much stronger and more reliable.

The result of these uncertainties must be a defined process to re-evaluate the stressors and stressor levels selected during the first iteration of TMDL development. DEQ must be committed to investigate whether the identified stressors are correct and the selected levels are adequately protective. We encourage you to consider adopting a 10 year interval for revisiting the effectiveness of the model and regulated stressor levels. The 10 year interval is long enough to implement some mitigation or restoration efforts and for the benthic macroinvertebrates to respond. If improvements are not detected in the biota, the identified stressors or allowed levels are incorrect. Remember, the correlation between a stressor and

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RBP scores does not infer causality. Published scientific information will change as well, providing new criteria on which to base decisions.

The use of only three categories for designating biological health is a weakness of the process. There seems to be a significant loss of information when scores are reduced to so few categories. Since most of the data are developed as counts of taxa, statistical methods (parametric and non-parametric) are readily available to analyze the original data without artificially condensing the information into a few categories.

The development of TMDL's is important for restoring the health of streams and rivers in Virginia. Determining an effective process to arrive at statistically defensible target stressor levels in complex systems with many non-point sources of contaminants is difficult. However, refining and critiquing the process will provide benefits for the TMDL's in similar settings that remain to be done. The resulting implementation plans will be much stronger, more effective at restoring biological health, and more efficient at addressing the contaminants problems.